

REMARKS

In this Response, Applicants amend claims 1, 12, 23, 34, 45, 52, 59, 66, 73, 80, 87, 94, 101, 108, 115, and 122 and remove the basis for the Examiner's rejections. Applicants amend the claims solely to expedite prosecution of the present application and do not acquiesce to any of the Examiner's rejections. Applicants' silence with regard to the Examiner's rejections of dependent claims constitutes a recognition by the Applicants that the rejections are moot based on Applicants' Amendment and/or Remarks relative to the independent claim from which the dependent claims depend. Applicants reserve the option to further prosecute the same or similar claims in the present or a subsequent application. Upon entry of the Amendment, claims 1-128 are pending in the present application.

Telephone Interview

Applicants' Attorney acknowledges with appreciation the courtesy extended by the Examiner in conducting a telephone interview on March 24, 2004. During the interview, the Applicants' Attorney and the Examiner discussed features of Applicants' independent claim 1, the cited reference of Gasser, and the distinctions therebetween that are described below.

Claim Rejections

35 U.S.C. § 101

The Examiner rejected claims 101-128 under 35 U.S.C. § 101 as being directed to non-statutory subject matter. Specifically, the Examiner considered the preambles of claims 101-128 (which recite, in pertinent part, "[a] computer data signal embodied in a carrier wave and representing a sequence of instructions that, when executed by a processor") to define non-statutory subject matter.

Applicants respectfully note that the Office has recently issued a great number of patent applications with claims whose preambles are identical in all relevant aspects to the above-cited preambles of Applicants' claims 101-128. Since the Office issues patents that are presumed to be valid, the Office's current interpretation of 35 U.S.C. § 101 must be that claims with such preambles are directed to statutory subject matter.

Applicants claims 101-128 are, therefore, directed to statutory subject matter under the Office's current interpretation of 35 U.S.C. § 101.

35 U.S.C. § 102

The Examiner rejected claims 1-128 under 35 U.S.C. § 102(b) as being anticipated by Gasser.

Claims 1-11

Applicants' independent claim 1 is directed to a method of requesting a resource. Among other things, Applicants' claim 1 deals with a presenter of credentials that requests access to the resource and a recipient of credentials who controls access to the resource and provides access thereto to members of a nested group. As provided in Applicants' claim 1, the presenter of credentials requests the resource by presenting to the recipient of credentials one or more chains of group credentials that prove the presenter's membership in the nested group.

In one embodiment, Applicants' claim 1 relates to a scenario that includes a principal, a resource server, and a resource. The resource server controls access to the resource and provides access thereto to members of a nested group. The principal seeks access to the resource.

Gasser describes conventional approaches by which the principal seeks access to the resource. In Gasser, the principal transmits a request for access to the resource server, and the resource server determines whether to provide access to the principal. (Gasser col. 11, ll. 36-46 and col. 17, ll. 59-67.) The resource server makes this determination by identifying the groups to which access can be provided (e.g., by identifying the group names on an access control list at the resource server) and requesting group membership certificates for each of the identified groups from a Group Naming Service (GNS). (Gasser col. 10, l. 35 to col. 11, l. 15, col. 11, ll. 36-46, and col. 17, ll. 59-67.) The resource server determines whether the principal's identity is included in any of the group membership certificates. If the resource server determines that the principal's identity is so included, the resource server provides access to the principal.

Gasser's conventional approaches are computationally demanding on the resource server. For each principal that requests access, the Gasser resource server (i) retrieves from the GNS group membership certificates for those groups to which access is available, (ii) determines

whether the principal's identity is included in any of those group membership certificates, and (iii) if appropriate, provides access to the principal.

In contrast, Applicants' independent claim 1 describes an approach that can be so implemented as to be less computationally demanding on the resource server. In Applicants' approach, the requesting principal presents to the resource server one or more chains of group credentials that prove the principal's membership in the nested group, so that the resource server is not required to retrieve group membership certificates and determine whether the requesting principal's identity is included in any of the retrieved certificates. In Applicants' approach, therefore, the labor of determining whether the requesting principal is a member of the nested group can be shifted from the resource server to the requesting principal.

Since Gasser describes conventional approaches, Gasser does not teach or suggest at least the feature of Applicants' independent claim 1 directed to "the presenter of credentials presents to the recipient of credentials one or more chains of group credentials that prove the presenter's membership in the nested group."

Applicants' independent claim 1 and all of its dependent claims are, therefore, allowable.

Claims 12-72 and 101-114

Applicants' claims 12-72 and 101-114 are directed to devices, computer data signals, methods, and computer systems and include features similar to Applicants' independent claim 1. Applicants' claims 12-72 and 101-114 are allowable on the basis of the arguments presented with respect to Applicants' independent claim 1.

Claims 73-79

Applicants' independent claim 73 is directed to a method of operating a resource server on a computer network. Among other things, Applicants' claim 73 deals with a resource server that controls access to a resource and that provides access to the resource to members of a nested group. The resource server receives a resource-access request from a client, in which the request includes one or more chains of group credentials that prove client membership in the nested

group. The resource server validates the received chain of group credentials and, if it determines that the received chains of group credentials are valid, provides access to the resource to the client.

Applicants' claim 73 describes an approach by which a resource server receives requests for access from principals and provides access to members of a nested group. As previously described, Applicants' claim 1 describes an approach by which principals request access from a resource server that provides access to members of a nested group. Applicants' claims 1 and 73 are, therefore, complementary approaches to the principal-and-resource-server scenario that was described with respect to claim 1.

Since Applicants' claim 73 is complementary to Applicants' claim 1, Applicants' claim 73 and all of its dependent claims are allowable on the basis of the arguments presented with respect to Applicants' claim 1.

Claims 80-110 and 115-128

Applicants' claims 80-110 and 115-128 are directed to devices, computer data signals, methods and computer systems and include features similar to Applicants' independent claim 73. Applicants' claims 80-110 and 115-128 are allowable on the basis of the arguments presented with respect to Applicants' independent claim 73.

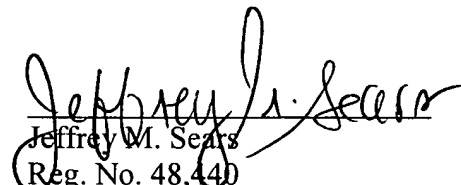
CONCLUSION

Applicants request entry of the present Amendment because it places the application in condition for allowance.

Applicants invite the Examiner to contact the Applicants' undersigned Attorney if any issues are deemed to remain prior to allowance.

Respectfully submitted,
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Date: 3/29/2004


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